IN THE UNITED STATES DISTRICT COURT FOR THE SOUTHERN DISTRICT OF TEXAS HOUSTON DIVISION

U.S. WELL SERVICES, LLC, U.S. WELL SERVICES HOLDINGS, LLC, PROFRAC MANUFACTURING, LLC, PROFRAC SERVICES, LLC,

Plaintiffs,

v.

LIBERTY ENERGY, INC., LIBERTY OILFIELD SERVICES LLC, LIBERTY ADVANCED EQUIPMENT TECHNOLOGIES LLC, ST9 GAS AND OIL LLC, ST9, INC., CHRIS BUCKLEY, and PAUL LIGHTFOOT,

Defendants.

Civil Action No. 4:24-CV-00839-KPE

PLAINTIFFS' OPENING CLAIM CONSTRUCTION BRIEF

TABLE OF CONTENTS

I.	Introduction	1
II.	Statement of the Nature and Stage of the Proceeding	2
III.	Legal Standards	2
1	. Claim Construction	2
2	. Indefiniteness	3
IV.	Level of a Person of Ordinary Skill in the Art	3
V.	High-Level Overview of the Technology	3
VI.	1	
1	. "high pressure"	5
	A. A POSITA Would Understand "High Pressure" in the Context of the Intrinsic Record	16
	B. Additional Evidence in the Record Provides Further Support that a POSITA Would Understand the Term "High Pressure"	8
	C. Other Litigation	13
	. "a gear ratio of the planetary gear train [is] selected" / "a selection of a gear ratio of ne planetary gear train"	
3	. "input pinion gears"	16
4	. "arms"	17
5	. "centralized control unit"	18
6	. "emergency power off unit"	20
p o g	. "one or more processing devices configured to receive a first parameter from a first device of the plurality of pumps, the distribution system, or the wellhead, and transmit the first arameter to a second device of the plurality of the plurality of pump, the distribution system or the wellhead, and detect that the first parameter is outside of an acceptable threshold; and enerate automated control instructions at the second device based at least in part on the first arameter".	1, t
p	generating the automated instructions at the second device based at least in part on the first arameter, and automatically adjusting one or more functions of the second device based on ne automated instructions"	
p	generating automated instructions at the second device based at least in part on the first arameter, and automatically adjusting one or more functions of the second device based on ne automated instructions"	
8	. "common support structure"	25
VII	Conclusion	25

TABLE OF AUTHORITIES

Pag	ge(s)
Cases	
Asyst Techs., Inc. v. Emtrak, Inc., 544 F.3d 1310 (Fed. Cir. 2008)	20
Chef America, Inc. v. Lamb-Weston, Inc., 358 F.3d 1371 (Fed. Cir. 2004)	25
Dynocom Indus., Inc. v. Mainline Auto. Equip. Pty. Ltd., No. 2:16-CV-00553-JRG-RSP, 2017 WL 3020826 (E.D. Tex. July 17, 2017)	18
Home Diagnostics, Inc. v. LifeScan, Inc., 381 F.3d 1352 (Fed. Cir. 2004)	17
Kyocera Wireless Corp. v. ITC, 545 F.3d 1340 (Fed. Cir. 2008)	6, 19
Liberty Energy Services, LLC v. ProFrac Services, LLC, et al, Case No. 2:24-cv-00884-JRG-RSP, Dkt. 1	4, 15
Luminara Worldwide, LLC v. Liown Elecs., Co., 814 F.3d 1343 (Fed. Cir. 2016)	5
McCarty v. Lehigh Val. R.R. Co., 160 U.S. 110 (1895)1	7, 21
Nautilus, Inc. v. Biosig Instruments, Inc., 572 U.S. 898 (2010)	3, 22
Nevro Corp. v. Boston Sci. Corp., 955 F.3d 35 (Fed. Cir. 2020)	8, 12
Oil States Energy Servs., LLC v. Worldwide Oilfield Mach., Inc., No. 4:23-CV-0557, 2024 WL 844916 (S.D. Tex. Feb. 27, 2024)pa	ıssim
Phillips v. AWH Corp., 415 F.3d 1303 (Fed. Cir. 2005) (en banc)pa	ıssim
Sonix Tech. Co. v. Publ'ns Int'l, Ltd., 844 F.3d 1370 (Fed. Cir. 2017)	3
Source Vagabond Sys. Ltd. v. Hydrapak, Inc., 753 F.3d 1291 (Fed. Cir. 2014)	7, 21

Thorner v. Sony Computer Ent. Am. LLC, 669 F.3d 1362 (Fed. Cir. 2012)	passim
Tidel Eng'g L.P. v. Fire King Int'l, Inc., 613 F. Supp. 2d 823 (E.D. Tex. 2009)	20
U.S. Well Servs., Inc. v. Halliburton Co., No. 6:21-CV-00367-ADA, 2022 WL 819548 (W.D. Tex. Jan. 17, 2022)	13, 19
U.S. Well Servs., Inc. v. TOPS Well Servs., Case No. 3:19-CV-00237, 2020 WL 9439469 (S.D. Tex. Sept. 18, 2020)	14, 19
Wasica Fin. GmbH v. Cont'l Auto. Sys., Inc., 853 F.3d 1272 (Fed. Cir. 2017)	22, 23, 24
Statutes	
35 U.S.C. § 112	3, 19
35 U.S.C. § 282	3

TABLE OF EXHIBITS

Exhibit	Description		
1	U.S. Patent No. 10,598,258		
2	U.S. Patent No. 11,959,533		
3	U.S. Patent No. 11,091,992		
4	U.S. Patent No. 10,655,435		
5	U.S. Patent No. 11,208,878		
A	Declaration of Michael R. Chambers, Sr.		
В	Declaration of Dr. L. Brun Hilbert, Jr. Ph.D., P.E.		
С	SLB Energy Glossary – hydraulic fracturing		
D	SLB Energy Glossary – frac pump		
Е	Deposition of Dr. L. Brun Hilbert (Dec. 24, 2024)		
F	Deposition of Michael R. Chambers (Dec. 13, 2024)		
G	J. E. Brown, et al., <i>Reservoir stimulation</i> , Chapter 11-Fracturing Operations (Michael J. Economides and Kenneth G. Nolte, Wiley 2000).		
Н	Excerpts of Lucas W. Bazan, <i>Hydraulic Fracturing – Fundamentals and Advancements</i> , Chapter 12-Field Implementation of Hydraulic Fracturing (Jennifer L. Miskimins, Society of Petroleum Engineers 2019) [USWS Liberty 0010611]		
Ι	H.O. McLeod and G.D. Cooper, <i>Recent Advances in Hydraulic Fracturing</i> , Chapter 12-Field Implementation of Hydraulic Fracturing (John L. Gidley, Society of Petroleum Engineers 1989) (Excerpt) [USWS_Liberty_0010678]		
J	Michael J. Economides et al., <i>Modern Fracturing: Enhancing Natural Gas Production</i> , p. 326 (Michael J. Economides, ET Publishing 2007) [USWS_Liberty_0010677]		
K	Gardner Denver advertisement, World Oil Composite Catalog (1968–69) Volume 2 (F–N) [USWS_Liberty_0010674]		
L	GD Energy website, (Oct. 25, 2024) https://gdenergyproducts.com [USWS_Liberty_0011292]		
M	A Beginner's Guide to Frac Equipment: Types and Applications, Ironclad Environmental Solutions, (Oct. 25, 2024) https://ironcladenvironmental.com/2023/07/10/a-beginners-guide-to-frac-equipmenttypes-and-applications/ [USWS_Liberty_0011302]		
N	StimCommander Pumps Brochure, Schlumberger [Liberty_00001440]		
0	Excerpts of Oilfield Technology Magazine, April 2018 [Liberty_00004739]		
P	GE to Provide Gas Turbine for Evolution Well Services, https://www.offshore-energy. biz/ge-to-provide-gas-turbine-for-evolution-well-services-canada/ [Liberty_00009589]		
Q	Excerpts of AccuFrac PC Automated Blender Controller Operation Manual (June 2005) [Liberty_00010616]		
R	Excerpts of Liberty 2021 Annual Report [USWS_Liberty_0010868]		

S	Excerpts of Oilfield Technology Magazine, September 2017 [Liberty_00000091]
T	Excerpts of <i>Bettering Human Lives</i> , Liberty Energy (3d ed. 2024) [USWS_Liberty_0010819]
U	Excerpts of Liberty 2022 Annual Report [Liberty_00001131]
V	Liberty Investor Day Presentation - June 17, 2021 [Liberty_00001322]
W	U.S. Patent No. 7,845,413
X	Deposition of Dr. L. Brun Hilbert, Conf. (Dec. 12, 2024)

Pursuant to the Court's Docket Control Order (Dkt. 30), Plaintiffs U.S. Well Services, LLC, U.S. Well Services Holdings, LLC (together, "USWS"), ProFrac Manufacturing, LLC, and ProFrac Services, LLC (collectively, "Plaintiffs") hereby submit their opening claim construction brief for United States Patent Nos. 10,598,258 (the "'258 patent"); 10,655,435 (the "'435 patent"); 11,091,992 (the "'992 Patent"); 11,208,878 (the "'878 Patent"); and 11,959,533 (the "'533 patent") (collectively, the "Asserted Patents").

I. INTRODUCTION

The parties dispute ten terms/phrases in the Asserted Patents. Defendants Liberty Energy, Inc., Liberty Oilfield Services LLC, Liberty Advanced Equipment Technologies, LLC (together, "Liberty"), ST9 Gas and Oil LLC, and Chris Buckley ("Buckley,") (collectively, "Defendants") wrongly contend that none of the terms are readily understandable to a person of ordinary skill in the art ("POSITA") and that they are all are either indefinite or require further construction. The terms should be given their plain and ordinary meaning, as Defendants have not and cannot meet their burden to show that the terms are indefinite or require further construction by the Court.

First, for the term "high pressure," Defendants argue that it is indefinite, or should alternatively be construed as "15,000 psi or more." This term should be given its plain and ordinary meaning, as Defendants ignore the overwhelming evidence that supports Plaintiffs' position, including testimony of Defendants' own expert, their own patents, and their own literature. Although Plaintiffs disagree that the term requires construction, to the extent the Court does so, extensive industry literature supports that "high pressure" means "fluid has been pressurized and discharged out of the fracturing pump."

Second, Defendants contend the remaining terms are indefinite or require further construction. At this time, Defendants have provided very little explanation to Plaintiffs as to why these terms are not understandable. Without sufficient explanation, Plaintiffs reserve the right to

respond to any argument raised in Defendants' Response. Nevertheless, Plaintiffs submit that the plain and ordinary meaning of each term is sufficient and understandable. As shown below, the Court should construe each disputed term according to its plain and ordinary meaning.

II. STATEMENT OF THE NATURE AND STAGE OF THE PROCEEDING

Plaintiffs accuse Defendants of infringing certain claims of the Asserted Patents. *See* Dkt. 56. Pursuant to the Court's Scheduling Order (Dkt. 30), the parties have exchanged preliminary infringement and invalidity contentions. The parties submitted a Joint Claim Construction and Prehearing Statement on November 21, 2024. Dkt. 58.

III. <u>LEGAL STANDARDS</u>

1. Claim Construction

Claim terms "are generally given their ordinary and customary meaning," which is "the meaning that the term would have to a person having ordinary skill in the art in question at the time of the invention." *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–13 (Fed. Cir. 2005) (en banc) (quotations omitted). To determine that meaning, claims must "be read in view of the specification, of which they are a part." *Id.* at 1315 (citations omitted). However, courts must not limit a claim based on limitations in the specification that are not part of the claim, and it "is a general rule that 'claims of a patent are not limited to the preferred embodiment... or to the examples listed within the patent specification." *Oil States Energy Servs., LLC v. Worldwide Oilfield Mach., Inc.*, No. 4:23-CV-0557, 2024 WL 844916, at *3 (S.D. Tex. Feb. 27, 2024) (Ellison, J.) (quotations omitted). In the absence of lexicography or disclaimer, claim terms are given their plain and ordinary meaning. *Thorner v. Sony Computer Ent. Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012).

Courts may also consider extrinsic evidence, which consist of "all evidence external to the patent and prosecution history." *Phillips*, 415 F.3d at 1317 (quotation omitted). Extrinsic evidence may "provide background on the technology at issue, to explain how an invention works, to ensure

that the court's understanding of the technical aspects of the patent is consistent with that of a [POSITA], or to establish that a particular term in the patent or the prior art has a particular meaning in the pertinent field." *Id.* at 1318.

2. Indefiniteness

Patent claims are presumed valid, including under 35 U.S.C. § 112. See 35 U.S.C. § 282. A claim is invalid for indefiniteness if it "fail[s] to inform, with reasonable certainty, those skilled in the art about the scope of the invention." Nautilus, Inc. v. Biosig Instruments, Inc., 572 U.S. 898, 901 (2010). "Indefiniteness must be proven by clear and convincing evidence." Sonix Tech. Co. v. Publ'ns Int'l, Ltd., 844 F.3d 1370, 1377 (Fed. Cir. 2017).

IV. LEVEL OF A PERSON OF ORDINARY SKILL IN THE ART

Plaintiffs propose that the POSITA would have either (1) a Bachelor of Science in Mechanical Engineering, Electrical Engineering, Petroleum Engineering or an equivalent field and at least two years of academic or industry experience in the oil and gas industry, including well drilling, completion, or production; or (2) at least four years of industry experience in the oil and gas industry, including well drilling, completion, or production. Ex. A, Declaration of Michael R. Chambers, Sr., Plaintiffs' Expert ("Chambers Dec."), ¶ 38.1

V. HIGH-LEVEL OVERVIEW OF THE TECHNOLOGY

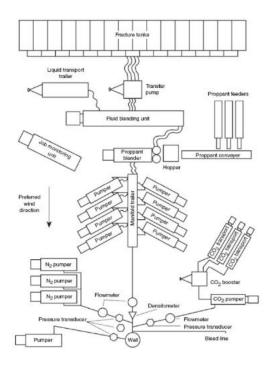
The Asserted Patents relate to improved systems and methods for performing hydraulic fracturing operations. Oil and gas deposits generally exist in the porous space between grains in clay or rock below the Earth's surface and hydraulic fracturing stimulates their production. Ex. A ¶¶ 44–45. The SLB Energy Glossary defines "hydraulic fracturing" as:

¹ The two proposed levels of skill by the parties are virtually identical except for the addition of hydraulic fracturing as acceptable academic or industry experience by Dr. Hilbert, but the difference does not impact the analysis because hydraulic fracturing is a type of well completion. *See* Ex. B, Declaration of Dr. L. Brun Hilbert, Defendants' Expert ("Hilbert Dec."), ¶ 21.

A stimulation treatment routinely performed on oil and gas wells in low-permeability reservoirs. Specially engineered fluids are pumped at high pressure and rate into the reservoir interval to be treated, causing a vertical fracture to open. The wings of the fracture extend away from the wellbore in opposing directions according to the natural stresses within the formation. Proppant, such as grains of sand of a particular size, is mixed with the treatment fluid to keep the fracture open when the treatment is complete. Hydraulic fracturing creates high-conductivity communication with a large area of formation and bypasses any damage that may exist in the near-wellbore area.

Ex. C at 2. To pump the fluids, hydraulic fracturing pumps (also called "frac pumps") are used, and the SLB Energy Glossary defines "frac pump" as "[a] high-pressure, high-volume pump used in hydraulic fracturing treatments." Ex. D at 2. The amount of pressure needed at the surface (surface treating pressure) to fracture the formation is a function of a number of variables including formation properties, well depth, fluid density, and friction. Ex. A, Chambers Dec. ¶ 49; Ex. B, Hilbert Dec. ¶ 43; Ex. E, Hilbert Dep. at 106:23–108:6. Once the treating pressure is determined and the desired pumping rate is selected, then the amount of hydraulic horsepower needed on site can be calculated which would inform those fracturing the well the number and size of the hydraulic fracturing pumps needed to perform the operation. Ex. A, Chambers Dec. ¶¶ 49–50; Ex. E, Hilbert Dep. at 111:17–114:17.

The equipment used in hydraulic fracturing varies but "generally water is pulled from frac tanks, mixed with sand and chemicals in a blender, discharged to a low pressure manifold, pressurized by frac pumps, discharged to a high pressure manifold, and directed through high pressure treating lines to the wellbore." Ex. A, Chambers Dec. ¶ 53; see also ¶¶ 51–56. Also included are transfer pumps to move the fluid between equipment and controls infrastructure including various sensors, controllers, and a data van where the job is monitored. *Id.* ¶ 53. Both Mr. Chambers and Dr. Hilbert included the same schematic in their reports:



Ex. A ¶ 51; Ex. B ¶ 35; Ex. G at p. 11-20; Ex. H at USWS_Liberty_0010619.

VI. DISPUTED TERMS FOR CLAIM CONSTRUCTION

Based on the plain meaning of the phrases, the scope and meaning of the disputed phrases are clear. The Court should construe each disputed phrase as described below.

1. "high pressure"

Relevant Patents and Claims	Plaintiffs' Proposal	Defendants' Proposal
'258 Patent:	'258 Patent: Plain and ordinary meaning. No construction needed.	
claims 1, 11, Alternatively, "high pressure" means the fluid has been		Alternatively,
15	pressurized and discharged out of the fracturing pump	"15,000 psi or more"

The Court need not construe "high pressure," as it is an industry term well understood by a POSITA. The Federal Circuit has consistently reiterated "[a]bsent lexicography or disavowal, we do not depart from the plain meaning of the claims." *Luminara Worldwide, LLC v. Liown Elecs.*Co., 814 F.3d 1343, 1353 (Fed. Cir. 2016) (citing *Thorner*, 669 F.3d at 1365). The intrinsic and extrinsic evidence make clear that the term "high pressure" is readily understandable by a POSITA as written; indeed, Liberty uses the term "high pressure" in its own patents and publications in the

same manner as the claims, as does a plethora of other industry literature. Further, there is no support for Defendants' alternative construction of "15,000 psi or more."

A. A POSITA Would Understand "High Pressure" in the Context of the Intrinsic Record

The intrinsic record shows that "high pressure" should be given its plain and ordinary meaning. The relevant claim language describes a "multi-plunger hydraulic fracturing pump" that pumps or is configured to pump "fluid into a wellbore associated with the well at a *high pressure* so that the fluid passes from the wellbore into the subterranean formation and fractures the subterranean formation." Ex. 1, '258 Patent Cls. 1, 11, 15 (emphasis added). Courts do "not interpret claim terms in a vacuum, devoid of the context of the claim as a whole." *Kyocera Wireless Corp. v. ITC*, 545 F.3d 1340, 1347 (Fed. Cir. 2008). Indeed, "the context in which a term is used in the asserted claim can be highly instructive." *Phillips*, 415 F.3d at 1314. In the full context of the claims, "high pressure" is readily apparent to a POSITA, that is, the claims are referencing hydraulic fracturing pumps that are configured to perform a hydraulic fracturing operation.

To the extent Defendants argue the specific pressure range delineated by "high pressure" is unclear, thereby rendering the term indefinite, the Federal Circuit has squarely rejected this argument. In *Nevro*, the patents at issue concerned "paresthesia-free" therapy which meant the therapy "does not produce a sensation usually described as tingling, pins and needles, or numbness." *Nevro Corp. v. Boston Sci. Corp.*, 955 F.3d 35, 39 (Fed. Cir. 2020). The district court found "[a]lthough the parameters that would result in a signal that does not create paresthesia may vary between patients, a skilled artisan would be able to quickly determine whether a signal creates paresthesia for any given patient" and thus found the method claims not indefinite. *Id.* at 38. However, the court held the system and device claims indefinite because infringement "depended upon the effect of the system and not a parameter of the system or device itself and therefore, 'a

skilled artisan cannot identify the bounds of these claims with reasonable certainty." Id.

The Federal Circuit reversed the district court, holding that "[d]efiniteness does not require that a potential infringer be able to determine *ex ante* if a particular act infringes the claims." *Id*. at 40. The Federal Circuit explained the claims were not indefinite because "a skilled artisan would be able to quickly determine whether a signal creates paresthesia for any given patient." *Id*.

The same is true here. A POSITA is easily able to determine whether hydraulic fracturing pumps are configured to pump fluid at high pressure so that the fluid passes from the wellbore into the subterranean formation and fractures the subterranean formation. Both experts agree that, while the pressure required to successfully fracture any given well may vary, the requirements for any given well are understood and indeed *must* be understood to design and perform a hydraulic fracturing operation:

- "[T]he equipment on a hydraulic fracturing site is selected for the particular job at hand. In order to select the equipment, a POSITA would understand that the amount of hydraulic horsepower on site would be a function of the surface treating pressure and the pump rate required to accomplish the job . . . A POSITA would readily understand whether a system is configured to generate high enough pressure to fracture a formation because the system would be designed and the equipment chosen such that the fracturing operation could be performed. A POSITA would also readily understand whether an act of pumping fluid would be at enough pressure to fracture a formation because the job would be designed such that the fracturing operation could be performed." Ex. A, Chambers Dec. ¶ 60 (emphasis added).
- "Q. Dr. Hilbert, how is the equipment on a hydraulic fracturing site selected? A. Generally, I guess in a big scope, theoretical sense, the geology of the rock, the strength of the rock that [] an operator wants to hydraulically fracture is determined. So what is the pressure necessary to fracture the rock? ... Q. Is the equipment on the frac site selected for the particular job at hand? A. Yes, I believe so." Ex. E, Hilbert Dep. at 106:23–107:25 (emphasis added).
- "Q. So on any given frac site, when the operation is occurring, that equipment would have been selected to be able to fracture the formation, correct? A. That's correct . . . whatever the pressure needed to fracture the formation." Ex. E, Hilbert Dep. at 112:10–19.
- "Q. And when calculating the hydraulic horsepower required for frac equipment, are pressure drops taken into account? A. Yes.... Q. At the time you get to a frac site, you can assume that the frac equipment has been designed to account for those pressure drops, correct? A. Well, as part of the engineering, having done that myself, [] you want to be sure of that.... But before the equipment arrives on the frac site, presumably the operator's engineers have

determined what's necessary to be on the frac site to perform a profitable hydraulic fracturing job. Ex. E, Hilbert Dep. at 112:20–113:23.

Thus, as in *Nevro*, the claims are not indefinite because for any given job a POSITA will be able to readily ascertain whether the hydraulic fracturing pumps are configured to pump fluid at high pressure so that the fluid passes from the wellbore into the subterranean formation and fractures the subterranean formation.

B. Additional Evidence in the Record Provides Further Support that a POSITA Would Understand the Term "High Pressure"

Industry literature and the parties' experts also show that "high pressure" is not indefinite and needs no construction.

First, as Plaintiffs' expert Mr. Chambers notes, "the claim language informs a POSITA as to the meaning of the term, which is simply a hydraulic fracturing pump such as those present on almost if not every hydraulic fracturing site in the United States today and without which you could not perform a hydraulic fracturing operation." Ex. A, Chambers Dec. ¶ 58. He states "frac pumps are sometimes referred to as high pressure pumps because the pressurize the fluid to a high pressure." Id. ¶ 54 ("Fracture pumps ... draw low-pressure liquid and then discharge high-pressure liquid.") citing Ex. H, Chapter 12 at 12.3.1.1)). He confirmed in his deposition that hydraulic fracturing pumps output "high pressure fluid" when pumping during a fracturing operation, and that is true no matter what the actual pressure value is. See, e.g., Ex. F, Chambers Dep. at 64:10–25; 70:25–71:10. Mr. Chambers further noted that while the pressures used vary based on certain parameters, "on any given frac site there will be low pressure (upstream of frac pumps) equipment and high pressure (frac pumps and downstream of frac pumps) equipment. Ex. A, Chambers Dec. ¶ 56. As such, the term "high pressure" is readily understandable and needs no construction.

Second, industry literature indicates the term is readily understandable and has an established meaning. A number of industry sources spanning many decades use the term "high

pressure," without any additional explanation needed, when referring to hydraulic fracturing operations and certain on-site equipment that handles high pressure fluid or the fluid itself that has exited the frac pump and is therefore high pressure:²

- hydraulic fracturing. n. [Shale Gas, Well Completions, Well Workover and Intervention] A stimulation treatment routinely performed on oil and gas wells in low-permeability reservoirs. Specially engineered *fluids are pumped at high pressure* and rate into the reservoir interval to be treated, causing a vertical fracture to open. Ex. C at 2 (SLB Energy Glossary).³
- frac pump. n. [Well Workover and Intervention] A <u>high-pressure</u>, high-volume pump used in hydraulic fracturing treatments. Ex. D at 2 (SLB Energy Glossary).
- "The <u>high-pressure pumps</u> are tied into a <u>high-pressure manifold</u> leading to the <u>high-pressure line</u> to the wellhead." Ex. I (Monograph).⁴
- [11-4.3. <u>High-pressure pumps</u>] <u>High-pressure pumps</u> should be spoiled close enough to the blender so that the discharge pumps on the blender can easily feed slurry at a sufficiently high net-positive-suction head to the intake manifolds on the pumps.... The manifold trailer helps organize both the <u>low-pressure suction hookup</u> and the <u>high-pressure discharge hookup</u>. Ex. G at 11–22 (Economides).
- "The <u>high-pressure pumps</u> intensify the fluid pressure of the slurry and discharge it back to the <u>high-pressure manifold</u> of the missile." Ex. H (Chapter 12) at USWS_Liberty_0010618.⁵
- "The blending unit is usually connected to the manifold trailer by these discharge hoses and the <u>low-pressure manifold</u> on the top of the manifold trailer feeds all the pumps. Conversely, the <u>high-pressure pumps</u> are connected to the lower <u>high-pressure treating lines</u> at the bottom of the manifold, and this manifold is connected to the wellhead via <u>high-pressure lines</u>. Ex. J (Modern Fracturing) at 9–2.3.
- "The compact, lightweight 1000 horsepower PZ-9 pump is engineered for <u>high pressure fluid</u> and mud service." Ex. K (Gardner Denver advertisement).

² This is a non-exhaustive list of extrinsic evidence that utilizes "high pressure" in the manner described, and many of the cited references below include multiple recitations of "high pressure."

³ Dr. Hilbert confirmed that the glossary is "a glossary of oil field terms. It's not something that I rely upon, but it's something that if one needs a quick definition of something, this would suffice." Ex. E, Hilbert Dep. at 161:6–18.

⁴ This reference, *Recent Advances in Hydraulic Fracturing*, Society of Petroleum Engineers, Henry L Doherty Series Monograph. v 12, is cited by both experts.

⁵ This reference, *Hydraulic Fracturing-Fundamentals and Advancements*, Society of Petroleum Engineers, Jennifer L. Miskimins, is a 2019 update to the Monograph (published in 1989). Chapter 12, titled "Field Implementation of Hydraulic Fracturing" uses the term "high pressure" 49 times.

- "We made our name designing and manufacturing high-pressure pumps and parts, while delivering unmatched service." Ex. L at 2 (Gardner Denver website).
- "Tiny holes or perforations are made at the end of the horizontal leg through which a mixture of water (90%), frac sand (9.5%), and chemicals (0.5%) is injected at <u>high pressure</u>." Ex. M (Beginner's Guide) at 2.
- "By fully automating all <u>high-pressure pump</u>s, the system's rate control is more efficient, consistent, and safe." Ex. N (StimCommander).
- "Weir works to solve real world problems to improve productivity and reduce total cost of ownership from the frac pump to the wellhead ... it allows operators to keep <u>high-pressure</u> <u>fluid</u> reliably in check. Ex. O at Liberty_00004805.
- "Evolution Well Services is an oilfield technology company that provides mobile, modular, electric-powered *high-pressure pumping systems* for use in hydraulic fracturing." Ex. P.
- A software manual produced by Defendants shows low pressure lines upstream of the frac pumps and <u>high pressure</u> lines downstream of the frac pumps. Ex. Q (AccuFrac Manual) at Liberty 0010711.

The above-cited references all describe hydraulic fracturing equipment and processes as involving "high pressure," yet none limit that to a certain pressure threshold or range and the meaning is understood by industry personnel. This is because high pressure confers a certain status on a fluid—that it has been pressurized and discharged from the fracturing pumps—or the equipment is designed to handle that fluid, and this meaning is well understood in the industry and readily apparent to any POSITA.

Third, Dr. Hilbert attempts to inject ambiguity where there is none, positing "[t]here is no universally accepted definition of the term 'high pressure' with regard to pumps for hydraulic fracturing operations," but the industry literature cited above proves otherwise. Ex. B, Hilbert Dec. ¶ 33. Dr. Hilbert argues that "to refer to pumps delivering fracturing fluid to a wellbore as 'high pressure,' is vague and is not a term of art that would be understood from the perspective of ordinary skill." Id. ¶ 40. But when asked if he understood "high-pressure pumps," Dr. Hilbert responded "I understand it to mean the hydraulic fracturing pumps, which will be pumping fluid

into the well at a <u>higher pressure</u> than the earlier mentioned blender, hydration tank and other components upstream from the fracturing pumps." Ex. E, Hilbert Dep. at 144:13–20 (emphasis added); Ex. I (Monograph). When asked about Liberty's CEO referring to certain equipment as low-pressure and frac pumps as high-pressure, Dr. Hilbert testified "the low-pressure side of the frac fleet, I take to mean . . . the water tanks, the blender, the hydration unit, that equipment, and then there are the hydraulic fracturing pumps that will be increasing from the lower to the high pressure to be able to hydraulically fracture the subsurface formation." Ex. E, Hilbert Dep. at 152:19–25. Dr. Hilbert had no trouble understanding what "high pressure" means.

Dr. Hilbert asserts a POSITA would not understand what pumps "should be deemed 'high pressure' because many pumps upstream of hydraulic fracturing pumps (i.e., the pumps delivering fracturing fluid to a wellbore) can pump at pressures in excess of the pressure required to fracture certain formations." Ex. B, Hilbert Dec. ¶ 40. But this ignores the fact that the claims require a "multi-plunger hydraulic fracturing pump" that pumps or is configured to pump "fluid into a wellbore associated with the well at a high pressure so that the fluid passes from the wellbore into the subterranean formation and fractures the subterranean formation." Ex. 1, '258 Patent, Cls. 1, 11, 15. Therefore, the capabilities of the other pumps on site that are not hydraulic fracturing pumps are irrelevant. Dr. Hilbert confirmed in his deposition that "the transfer pumps are pumping at a lower pressure and a lower rate of volumetric fluid than the fracturing pumps themselves." Ex. E, Hilbert Dep. at 60:25–61:2. He also confirmed that the source of the schematic used in Section V above referred to the hydraulic fracturing pumps as high pressure pumps. Ex. E, Hilbert Dep. 100:10–22; Ex. G at 11–22.

Dr. Hilbert's testimony confirms that he understands what is meant when industry literature references high pressure pumps and high pressure fluid. Dr. Hilbert also repeatedly confirmed in his deposition that the fracturing equipment on a wellsite is selected and configured to achieve the rates and pressures necessary to perform a hydraulic fracturing operation by fracturing the formation. *See, e.g.*, Ex. E, Hilbert Dep. at 106:23-107:25, 112:10-19, 112:20-113:23. Therefore Dr. Hilbert confirms that, as in *Nevro*, "a skilled artisan would be able to quickly determine whether a [multi-plunger hydraulic fracturing pump is configured to pump fluid into a wellbore associated with the well at a high pressure so that the fluid passes from the wellbore into the subterranean formation and fractures the subterranean formation] for any given [hydraulic fracturing operation]." 955 F.3d at 40.

Fourth, despite retaining Dr. Hilbert to take the positions he has taken, Defendants Liberty and ST9 consistently use the term "high pressure" in their business communications without feeling the need to provide additional context, which strongly suggests the Defendants believe the term is readily understandable and use the term consistent with Plaintiffs' proposed plain and ordinary meaning:

- Our next-generation electric frac fleet, digiFrac™, will now come to market faster, as we acquired already-deployed electric technology and equipment for the <u>low-pressure side of a</u> <u>frac fleet</u> to complement the <u>high-pressure digiFrac pumps</u> that we have been developing inhouse. Ex. R at USWS_Liberty_0010868 (Liberty 2021 Annual Report).
- "Having developed new valve and seat technology, [ST9] is now working on solutions to other technical challenges faced by operators; one of these is the weakness of existing <u>high-pressure</u> reciprocating pump stuffing box packing." Ex. S at Liberty 00000147.
- "Orchestrates rate control of <u>high-pressure pumps</u> to achieve master rate setpoint." Ex. T (Bettering Human Lives Liberty Energy 2024) at USWS Liberty 0010819.
- "Our business revolves around the safe operation, maintenance, and supply of more than two
 million horsepower of cutting-edge, <u>high-pressure frac pumps</u>." Ex. U (Liberty 2022 Annual
 Report) at Liberty 00001131.
- "Our hydraulic fracturing units consist primarily of <u>high-pressure hydraulic pumps</u>, engines, transmissions, radiators and other supporting equipment that are typically mounted on trailers."
 Ex. R (Liberty 2021 Annual Report) at USWS_Liberty_0010892; Ex. U (Liberty 2022 Annual Report) at Liberty_00001163.

C. Other Litigation

There have been seemingly conflicting decisions from other courts regarding the term "high pressure" in other contexts. For example, the Court in *U.S. Well Servs., Inc. v. Halliburton Co.*, found the term indefinite. No. 6:21-CV-00367-ADA, 2022 WL 819548, at *9 (W.D. Tex. Jan. 17, 2022). The patents litigated in that matter are not in the same family as the '258 Patent at issue presently and have different specifications and different intrinsic evidence. Further, the record in this case is much more developed than that in the *Halliburton* litigation, as the court was not presented with *any* of the extrinsic evidence provided here, such as the industry literature. This is in stark contrast to the present case where a great deal of evidence exhibits just how commonly used "high pressure" is in the industry to denote fluid that has been pressurized and discharged out of the fracturing pumps or equipment configured to handle that fluid.

Conversely, in *U.S. Well Servs., Inc. v. TOPS Well Servs.*, a court in this District found the term "high pressure" was not indefinite. Case No. 3:19-CV-00237, 2020 WL 9439469, at *26 (S.D. Tex. Sept. 18, 2020). There, the court found the method claim not indefinite, holding:

[C]laim 9 is not indefinite simply because the method may be performed in different locations under different conditions. Instead, infringement of claim 9 will always depend on how the system is used. In other words, the claim will be infringed only if a system is actually used in such a way that "the fracturing fluid enters and cracks the formation."

Id. at 26. For the system claims, the court determined that:

The intrinsic evidence indicates that "high pressure" means capable of pumping at 15,000 psi or more. See Dkt. 72-4 at 10 (4:42-56) ("The pressure of the slurry can be increased up to around 15,000 psi by pump system . . . [and] then pumped into the wellbore for fracturing the formation." (references omitted)).

Id. Once again, however, the court was not presented with any of the extrinsic evidence set forth here establishing the plain and ordinary meaning of "high pressure" in the context of hydraulic fracturing. Further, the patents litigated in that matter are not in the same family as the '258 Patent at issue presently, and have different specifications and different intrinsic evidence. Notably, the intrinsic evidence of the '258 Patent does not contain the disclosure that the Court relied on in its finding for the system claims (i.e., a disclosure of 15,000 psi).

But other litigation between Liberty and Plaintiffs in the Eastern District of Texas underscores the ubiquitous nature of the "high pressure" phrasing. *See Liberty Energy Services, LLC v. ProFrac Services, LLC, et al*, Case No. 2:24-cv-00884-JRG-RSP, Dkt. 1. There, in the factual background, Liberty asserted "Hydraulic fracturing (commonly referred to as "fracing" or "fracking") is a method of harvesting oil and natural gas where a *high pressure* stream of liquid and solid particles are injected into a well." *Id.* at 3 (emphasis added). Each of the Asserted Patents

⁶ The Court later granted the Parties' Joint Motion to Vacate Report and Recommendations and Order to Dismiss without Prejudice. Case No. 3:19-CV-00237, Dkt. 135.

in that case uses the term "high pressure" more than a dozen times and provides the following exemplary disclosures:

- The present invention relates generally to a pumping system for <u>pumping a fluid from a</u> surface of a well to a wellbore at high pressure..." Ex. W, '413 Patent at 1:14-16.
- These pressure oscillations allow the pump to receive a fluid at a low pressure and discharge it at a high pressure via one way valves (also called check valves). Also connected to the prime mover 106 is a radiator 114 for cooling the prime mover 106. In addition, the plunger pump fluid end 108 includes an intake pipe 116 for <u>receiving fluid at a low pressure</u> and a discharge pipe 118 for <u>discharging fluid at a high pressure</u>. Id. at 3:31–38.
- As shown in FIG. 2, each plunger pump 201 <u>receives the fracturing fluid at a low pressure</u> and <u>discharges it</u> to a common manifold 210 (sometimes called a missile trailer or missile) <u>at a high pressure</u> as shown by dashed lines 214. <u>Id.</u> at 3:58-62.

The evidence overwhelmingly confirms that the term "high pressure" is readily understood by a POSITA in the context of the claims as a whole, and because there is no lexicography or disclaimer the term should be given its plain and ordinary meaning. Should the Court decide that for clarity's sake that the plain and ordinary meaning should be construed, then the Court should construe "high pressure" to mean the fluid has been pressurized and discharged out of the fracturing pump, consistent with the evidence presented.

2. "a gear ratio of the planetary gear train . . . [is] selected" / "a selection of a gear ratio of the planetary gear train"

Relevant Patents and Claims	Plaintiffs' Proposal	Defendants' Proposal
'258 Patent: claims 1, 11	Plain and ordinary meaning. No	"an operating gear from multiple operating gears of the planetary gear train [is] selected"
'533 Patent: claim 19	construction needed.	"a selection of an operating gear from multiple operating gears of the planetary gear train"

A plain reading of the disputed phrase provides a clear understanding of its scope, and the Court should construe the disputed phrase according to its plain and ordinary meaning. Dr. Hilbert did not opine on this term in his declaration, and Defendants have not explained why or to what extent the phrase is not understandable as written. In reviewing Defendants' proposal, the only

portion of the phrase that is in fact disputed is "gear ratio," which they submit should be defined as an operating gear of multiple operating gears. But the experts agree, a gear ratio is readily understandable to a POSITA and requires no further construction.

Mr. Chambers notes that a "POSITA would understand that the gear ratio in a planetary gear train is designed to reduce or increase the RPM and either increase or decrease the torque depending on the ratio of the multiple gears that interface with one another" and "[s]electing the correct gear ratio will allow proper speeds of motors and pumps to be selected." Ex. A, Chambers Dec. ¶ 67. Likewise, Dr. Hilbert showed in his deposition his familiarity with gear ratios, explaining that the "[g]ear ratio is a term of art for the rotation of gears in an assembly, and say for a transmission or an ability to provide a rotational speed or a torque or force, if you will in an assembly of gears" and that "you learn those in mechanical engineering." Ex. E, Hilbert Dep. at 20:9–17 (emphasis added); see also id. at 74:18–75:19.

Therefore, the Court should thus construe the phrase pursuant to its plain and ordinary meaning and reject Defendants' proposed limitations.

3. "input pinion gears"

Relevant Patents and Claims	Plaintiffs' Proposal	Defendants' Proposal
'258 Patent: claims 1, 2, 11, 12, 15, 16	Plain and ordinary	"smaller drive gear that
'533 Patent: claims 1, 2, 8, 10, 11, 17, 22	meaning. No	meshes with a larger
	construction needed.	gear"

A plain reading of the disputed phrase provides clear understanding of its scope, and the Court should construe the disputed phrase according to its plain and ordinary meaning. Much like "gear ratio," Dr. Hilbert did not opine on this term in his declaration, and Defendants have not fully explained why or to what extent the phrase is not understandable as written. As with the term "gear ratio" the experts agree that the term "input pinion gears" is readily understandable to a POSITA and requires no further construction.

Mr. Chambers opines "the term 'input pinion gears' is readily understandable to a POSITA from its plain and ordinary meaning." Ex. A, Chambers Dec. ¶ 78. Likewise, when asked what the term "pinion gear" means, Dr. Hilbert exhibited an understanding and stated "[i]t is a component of a gear system which translates rotational motion for a motor or other type of gearing system. It's part of that component that provides the rotation." Ex. E, Hilbert Dep. at 20:19–24. Defendants' proposed construction appears it may be derived from Figure 1 of the '258 Patent, wherein input pinion gears are labeled as comparatively smaller than a larger gear they are in rotational contact with, but as this Court has noted "[w]e do not read limitations from the specifications into claims." Oil States, 2024 WL 844916, at *7 (quoting Thorner, 669 F.3d at 1366). Nothing in the specifications requires such limitation and even Dr. Hilbert failed to include such limitation in his own explanation.

The Court should construe the term pursuant to its plain and ordinary meaning and reject Defendants' proposed limitations.

4. "arms"

Relevant Patents and Claims	Plaintiffs' Proposal	Defendants' Proposal
'533 Patent:	Plain and ordinary meaning. No	Indefinite or
claims 1, 10, 22	construction needed.	"arms" do not include "gear teeth"

The Court should reject Defendants' argument of indefiniteness and proposed construction. "Absent a clear disavowal or contrary definition in the specification or the prosecution history, the patentee is entitled to the full scope of its claim language." *Home Diagnostics, Inc. v. LifeScan, Inc.*, 381 F.3d 1352, 1358 (Fed. Cir. 2004); *see also Source Vagabond Sys. Ltd. v. Hydrapak, Inc.*, 753 F.3d 1291, 1299 (Fed. Cir. 2014) ("[I]f we once begin to include elements not mentioned in the claim, in order to limit such claim . . . we should never know where to stop.") quoting *McCarty v. Lehigh Val. R.R. Co.*, 160 U.S. 110, 116 (1895))). No such disavowal exists here. As this Court

has noted, in some instances, the claim construction "inquiry is quite straightforward. That is, where ordinary meaning is 'readily apparent even to lay judges,' district courts merely apply 'the widely accepted meaning' of the terms, perhaps with the aid of 'general purpose dictionaries.'"

Oil States, 2024 WL 844916, at *2 (quoting Phillips, 415 F.3d at 1313). Such is the case here.

The Merriam Webster's dictionary provides the definition of "arm(s)" as "a slender part of a structure, machine, or an instrument projecting from a main part, axis, or fulcrum." Ex. A, Chambers Dec. ¶ 85. Similarly, Oxford's English dictionary states the term "arm(s)" means "[a] projecting or terminal part of a structure, object or machine; (in later use chiefly) spec. a mechanical part which resembles an arm in shape or size; a part which projects from a machine or piece of technical apparatus." *Id.* ¶ 86. Furthermore, caselaw only suggests that the term is so definite and accessible to a jury that courts have not found it necessary to define "arms," but rather only its modifiers. *See, e.g., Dynocom Indus., Inc. v. Mainline Auto. Equip. Pty. Ltd.*, No. 2:16-CV-00553-JRG-RSP, 2017 WL 3020826, at *4–5 (E.D. Tex. July 17, 2017) (explaining agreed construction of "outwardly extending support arms" and "support arms" as meaning "support arms that are capable of extending outward from the frame to provide a wider footprint" and "mounted to the outer end of each support arm").

The Court should construe the term pursuant to its plain and ordinary meaning and reject Defendants' proposal of indefiniteness and limitation.

5. "centralized control unit"

Relevant Patents Plaintiffs'		Defendants' Proposal	
and Claims	Proposal	*	
'992 Patent:	Plain and	"unit that is connected to multiple pumps, electric	
claims 1-3, 6-8,	ordinary meaning.	motors, blenders, and other surface and/or downhole	
14-20	No construction	sensors and tools to allow the operator to control	
	needed.	different parameters of the fracturing operation"	

Defendants' proposed construction imports unnecessary limitations into the asserted

claims, which on their face are readily understandable. Courts do "not interpret claim terms in a vacuum, devoid of the context of the claim as a whole." *Kyocera*, 545 F.3d at 1347 (citation omitted). Indeed, "the context in which a term is used in the asserted claim can be highly instructive." *Phillips*, 415 F.3d at 1314. In the full context of the claims, the meaning of "centralized control unit" is readily apparent to a POSITA, as each claim recites what is required of the centralized control unit. For example, Claim 1 requires:

a centralized control unit coupled to the electric pump, wherein the centralized control unit is configured to:

monitor the electric pump; ... wherein the centralized control unit is coupled to the electric pump via one or more of cabling, Ethernet, or wirelessly; and

wherein the centralized control unit is further configured to reset a fault occurring in the variable frequency drive.

Ex. 3, '992 Patent, Cl. 1. Defendants' construction excludes certain embodiments of Claim 1, which only requires one electric pump and does not require connection to blenders or downhole sensors. Defendants' construction appears to be a modified version of one embodiment or a monitor/control data van in the specification:

Monitor/control data van 40 can be mounted on a control vehicle 42, and connected to the pumps 10, electric motors 14, blenders 34, and other surface and/or downhole sensors and tools (not shown) to provide information to an operator, and to allow the operator to control different parameters of the fracturing operation.

Id. at 5:14–19. This is improper, as "[w]e do not read limitations from the specifications into claims." Oil States, 2024 WL 844916, at *7 (quoting Thorner, 669 F.3d at 1366).

Unlike the other terms at issue, this Court has already construed "centralized control unit" in the same patent family. *See U.S. Well Servs., Inc.*, 2020 WL 9439469, at *20–24.⁷ There, the Court held that the term was not subject to Section 112 ¶ 6, noting "the specification further

⁷ As noted above, the Court later granted the Parties' Joint Motion to Vacate Report and Recommendations and Order to Dismiss without Prejudice. Case No. 3:19-CV-00237 Dkt. 135.

indicates that a POSITA would understand the 'centralized control unit' has a definite structure. In one embodiment, the 'centralized control unit' is disclosed as a 'data van.'" *Id.* at 22; *see also Tidel Eng'g L.P. v. Fire King Int'l, Inc.*, 613 F. Supp. 2d 823, 835 (E.D. Tex. 2009) (rejecting limitations to term "monitor and accumulate" in relation to "central control unit"); *Asyst Techs., Inc. v. Emtrak, Inc.*, 544 F.3d 1310, 1314 (Fed. Cir. 2008) (discussing communications to "central control unit" and not finding it necessary to define term).

The Court should construe the term pursuant to its plain and ordinary meaning and reject Defendants' proposal of indefiniteness and limitation.

6. "emergency power off unit"

Relevant Patents and Claims	Plaintiffs' Proposal	Defendants' Proposal
'992 Patent: claims 6, 7, 15–18	Plain and ordinary meaning. No construction needed.	"unit included in the centralized control unit that allows for the hydraulic fracturing operation to be shut off completely"

Defendants' proposed construction once again imports unnecessary limitations into the asserted claims, which on their face are readily understandable. The surrounding claim language is highly instructive and gives context to the meaning of the term. *Phillips*, 415 F.3d at 1314. Defendants' construction once again improperly imports limitations from the specification, that is: "The monitor/control data van 40 further includes an Emergency Power Off (EPO) 43 functionality, which allows for the entire site to be shut off completely," (Ex. 3, '992 Patent at 5:56–58), which is improper. *See Oil States*, 2024 WL 844916, at *7 (citation omitted).

Defendants' proposed construction also clearly alters the asserted claims and injects two limitations which may not otherwise be required. For example, Claim 6 requires "an emergency power off unit <u>coupled to the centralized control unit</u>, the electric pump, and the generator, wherein the emergency power off unit is configured to <u>substantially immediately cut power from</u>

the generator when activated." Ex. 3, '992 Patent, Cl. 6. Defendants' construction would create internal inconsistencies, requiring the emergency power off unit be at the same time coupled to and included in the centralized control unit. Likewise, it would require the entire fracturing operation to be shut off completely but the claim only requires power being cut to the generator. This rewriting of the claim is improper. See Source Vagabond Sys. Ltd., 753 F.3d at 1299 ("[I]f we once begin to include elements not mentioned in the claim, in order to limit such claim . . . we should never know where to stop.") quoting McCarty, 160 U.S. at 116 (emphasis added))).

The Court should construe the term pursuant to its plain and ordinary meaning.

7. "one or more processing devices configured to receive a first parameter from a first device of the plurality of pumps, the distribution system, or the wellhead, and transmit the first parameter to a second device of the plurality of the plurality of pumps, the distribution system, or the wellhead, and detect that the first parameter is outside of an acceptable threshold; and generate automated control instructions at the second device based at least in part on the first parameter"

Relevant Patents and Claims	Plaintiffs' Proposal	Defendants' Proposal
'435 Patent: claims 1, 13, 17	Plain and ordinary meaning. No construction needed.	Indefinite

"generating the automated instructions at the second device based at least in part on the first parameter, and automatically adjusting one or more functions of the second device based on the automated instructions"

Relevant Patents and Claims	Plaintiffs' Proposal	Defendants' Proposal
'435 Patent: claims 7, 13	Plain and ordinary meaning. No construction needed.	Indefinite

"generating automated instructions at the second device based at least in part on the first parameter, and automatically adjusting one or more functions of the second device based on the automated instructions"

Relevant Patents and	Plaintiffs' Proposal	Defendants'
Claims		Proposal
'435 Patent: claim 13	Plain and ordinary meaning. No construction needed.	Indefinite

For the sake of brevity, the three claim terms above from the '435 Patent will be addressed

together. A plain reading of the disputed phrases provides clear understanding of their scope. There is nothing unclear or ambiguous about the claim language, let alone ambiguity that could plausibly rise to the level of "fail[ing] to inform, with reasonable certainty, those skilled in the art about the scope of the invention," as required for indefiniteness. *Nautilus*, 134 S. Ct. at 2124.

First, in the full context of the claims, the limitations are clearly laid out and understandable by a POSITA. See Ex. 4, '435 Patent Cls. 1, 7, 13. To the extent that Defendants argue that terms in the disputed phrase, such as "processing device" and "parameter," could apply to several components in a hydraulic fracturing spread, (Ex. B, Hilbert Dec. at ¶ 70), the claims' breadth is no reason to restrict otherwise proper claims scope. It is well established that the applicant determines the scope of its claims as part of the patent application process. It is not the role of claim construction to rewrite the claims to be narrower for the benefit of the accused infringer. See Wasica Fin. GmbH v. Cont'l Auto. Sys., Inc., 853 F.3d 1272, 1282 (Fed. Cir. 2017) ("[A]bsent a clear disavowal or alternative lexicography by a patentee, he or she is free to choose a broad term and expect to obtain the full scope of its plain and ordinary meaning.") (internal quotation omitted).

Second, the specification provides embodiments that provide examples for a POSITA as to what is covered by the claims. See, e.g., Ex. A, Chambers Dec. ¶¶ 108–110 (citing '435 Patent at 5:37–50 (describing devices); 5:50–6:9 (describing communication components); 6:20-61 (describing implemented examples)). The specification offers examples of "devices" which:

may include hardware features such as low pressure transducer (low and high frequency), high pressure transducers (low and high frequency), low frequency accelerometers, high frequency accelerometers, temperature sensors, external mounted flow meters such as doppler and sonar sensors, magnetic flow meters, turbine flow meters, proximity probes and sensors, speed sensors, tachometers, capacitive, doppler, inductive, optical, radar, ultrasonic, fiber optic, and hall effect sensors, transmitters and receivers, stroke counters, GPS location monitoring, fuel consumption, load cells, PLCs, and timers.

'435 Patent at 5:25-50. The specification teaches these devices "may be installed on the

components and dispersed in various locations." Id. at 5:48-50.

The specification also describes the components used in transmitting information and how equipment can react to certain communications. *See* '435 Patent at 5:50–69 (explaining that the "components may also include communication means that enable all the sensor packages, actuation devices, and equipment components to communicate with each other allowing for real time conditional monitoring," and listing examples of parameters that the equipment could adjust.) The specification further teaches that equipment "may be able to provide troubleshooting or other processes to be initialized automatically." *Id.* at 5:61–63; *see also id.* at 6:24–30 ("Equipment may be able to determine issues or failures on its own, then relay that message with a specified code and alarm. Equipment may also be able to shut itself down to prevent failures from occurring. Equipment may monitor itself as well as communicate with the system as a whole.").

Third, the testimony of both experts makes clear that the terms are readily understandable. Dr. Hilbert and Mr. Chambers both testified a "device" could be a pressure transducer (Ex. E, Hilbert Dep. at 88:7–10), a densitometer (Ex. E, Hilbert Dep. at 84:4–8) and examples of "parameters" include density (id. at 85:11–22), temperature, pressure (id. at 117:22–118:5; Ex. F, Chambers Dep. at 110:2–8), rate (Ex. F, Chambers Dep. at 133:8–11), and vibration, (id. at 133:23–134:3). Defendants may argue the term "device" is confusing because any device could act as either a first device or a second device or even both (Ex. B, Hilbert Dec. ¶ 71), or because the second device could be a processing device, a control device, or a communication device (id. ¶¶ 72–73). But this does not mean that any POSITA would not understand what device means. Again, the breadth of claims does not render them improper. See Wasica, 853 F.3d at 1282.

Likewise, Dr. Hilbert demonstrated his understanding of "threshold" when discussing flow meters. *See* Ex. E, Hilbert Dep. at 81:5–8 ("Q. So what you're saying is the sensor on the pump

can detect that the pump speed is above a threshold? A. Yes. The threshold would be an expectation measure.").

"[T]he term 'generating the automated instructions at the second device based at least in part on the first parameter,' is readily understandable to a POSITA from its plain and ordinary meaning." Ex. A, Chambers Dec. ¶ 107. Specifically, "[a] POSITA would readily understand the system had previously identified issues which might occur and had a planned method to react to them." Id. Dr. Hilbert demonstrated his understanding of this process in his deposition. In the context of a densitometer, Dr. Hilbert describes "there are multiple sensors and those are being fed back to something like the data van and then an operator can control that. If you have a computer program that's written, the system may be able to adjust itself or control itself." Ex. E, Hilbert Dep. at 88:1–6 (emphasis added). Dr. Hilbert equated this process to a heater set with a timer that automatically shuts itself down. Id. at 83:6-11. In the context of frac sites, Dr. Hilbert offered the example of pumps: "if you exceed a certain, say, pump speed or pump pressure, whether that's the transfer pump or the conveyor belt on the proppant tanks as it's feeding through the auger, if it exceeds that, it can be – it can then automatically shut itself off." *Id.* at 83: 17–23. This testimony echoes the teachings of the specification. See '435 Patent at Fig. 6, 7, 10:4–26; id. at 11:1–18 ("The method 180 may further include detecting that a measurement associated with a first pump of the plurality of pumps is outside of an acceptable threshold, and automatically taking the first pump offline in response to the detection.").

To the extent Defendants take issue with the perceived breadth of the claim as opposed to the plain meaning of the terms used, that is not a concern at the claim construction stage, as again a patentee "is free to choose a broad term and expect to obtain the full scope of its plain and ordinary meaning." *Wasica*, 853 F.3d at 1282 (quoting *Thorner*, 669 F.3d at 1367).

8. "common support structure"

Relevant Patents and Claims	Plaintiffs' Proposal	Defendants' Proposal
'878 Patent: claims 1, 2, 10	Plain and ordinary meaning. No construction needed.	"same skid, truck bed, or flatbed trailer"

A plain reading of the disputed phrase provides clear understanding of its scope, and the Court should construe the disputed phrase according to its plain and ordinary meaning. Much like "arms" above, in some instances, the claim construction "inquiry is quite straightforward. That is, where ordinary meaning is 'readily apparent even to lay judges,' district courts merely apply 'the widely accepted meaning' of the terms, perhaps with the aid of 'general purpose dictionaries.'" *Oil States*, 2024 WL 844916, at *3 (quoting *Phillips*, 415 F.3d at 1313). It is unclear what is not understandable about "common support structure."

Beginning with the claim language, no construction of the term "common support structure" is necessary because it is a common and readily understood English term, and the Asserted Patents' claims use it in a straightforward and unambiguous manner. *See Chef America*, *Inc. v. Lamb-Weston, Inc.*, 358 F.3d 1371, 1373 (Fed. Cir. 2004) ("These are ordinary, simple English words whose meaning is clear and unquestionable... They mean exactly what they say.").

Defendants again appear to import a modified version of an embodiment from the specification which discloses "It should be appreciated that inclusion of a trailer is for illustrative purposes only and that the components may also be mounted on a skid, truck bed, flatbed trailer, or the like." Ex. 5, '878 Patent at 10:9–12. Once again, this is improper, as "[w]e do not read limitations from the specifications into claims." *Oil States*, 2024 WL 844916, at *7 (quotation omitted).

VII. CONCLUSION

For the reasons stated above, the Court should adopt Plaintiffs' proposed constructions.

Respectfully submitted,

Dated: January 16, 2025

WINSTON & STRAWN LLP

By: <u>/s/_Thomas M. Melsheimer</u>

Thomas M. Melsheimer

Texas Bar No. 13922550

S.D. Bar No. 23709

TMelsheimer@winston.com

WINSTON & STRAWN LLP

2121 North Pearl Street, Suite 900

Dallas, TX 75201

Telephone: (214) 453-6500 Facsimile: (214) 453-6400

ATTORNEY IN CHARGE

Rex A. Mann

Texas Bar No. 24075509

S.D. Bar No. 1750609

RMann@winston.com

Ahtoosa A. Dale

Texas Bar No. 24101443

S.D. Texas Bar No. 3889540

adale@winston.com

Alexander M. Nowakowski

Texas Bar No. 24139851

S.D. Texas Bar No. 3886746

anowakowski@winston.com

WINSTON & STRAWN LLP

2121 North Pearl Street, Suite 900

Dallas, TX 75201

Telephone: (214) 453-6500

Facsimile: (214) 453-6400

E. Danielle T. Williams (pro hac vice)

DWilliams@winston.com

WINSTON & STRAWN LLP

300 S. Tryon Street, 16th Floor

Charlotte, NC 28202

Telephone: (704) 350-7790

Facsimile: (704) 350-7800

J. Tyler Boyce

Texas Bar No. 24127214

S.D. Texas Bar No. 3877314

TBoyce@winston.com

WINSTON & STRAWN LLP

800 Capitol Street, Suite 2400 Houston, TX 77002 Telephone: (713) 651-2600

Facsimile: (713) 651-2700

Courtney Samantha Block (pro hac vice)

Illinois Bar No. 6332468 cblock@winston.com

WINSTON & STRAWN LLP

35 W. Wacker Drive Chicago, IL 60601

Telephone: (312) 558-8135

ATTORNEYS FOR PLAINTIFFS

CERTIFICATE OF SERVICE

Pursuant to the Federal Rules of Civil Procedure and Local Rule 5.3, I hereby certify that, on January 16, 2025, all counsel of record who have appeared in this case are being served with a copy of the foregoing via e-mail.

/s/ Thomas M. Melsheimer Thomas M. Melsheimer